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In wrongful death cases, all family members must be counted (*aka:* repudiating the 'sole dependency' calculation)

By Cara L. Brown, M.A.

(1) How wrongful death cases differ from injury cases.

Wrongful death cases are treated differently from injury cases partly because there are more family participants involved:[1]

1) Decedent.
2) Survivor.
3) Dependent children (to age 25 for dependency on income loss,[2] age 18 for dependency on valuable services).
4) New or hypothetical partner and his/her children, and any additional children born to the survivor after the premature death of the decedent.[3]
5) In some cases, elderly parents (if dependency on the deceased, as with filial piety cases).

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[1] For more detailed discussion of all facets of assessing fatality loss damages, see C.L. Brown, **Damages: Estimating Pecuniary Loss** (Toronto, ON: Canada Law Book, a Thomson Reuters business), 2024 (36th edition), chapter 7; and **Brown's Economic Damages Newsletter** "FATALITY CASES: PCRs, valuable services, remarriage and divorce contingencies, and the tax gross-up" November 2022, vol. 19, issue 7.

[2] Research studying the financial dependency of young adults has found a pronounced (and new) propensity for children over the age of majority to delay financial independence from parents.

[3] These events alter household sizes, which in turn change the personal consumption rate, which depends on family income and family size. Adding a new partner's children (not born to the survivor) reduces the original family's dependency loss because the survivor's income is now distributed between the dependent children and the added children in the household. Similarly, if the survivor and a new partner have a child together, this too reduces the dependency loss on the decedent's income because the survivor's income now has to be apportioned between the decedent's children and the expanded family.

Prior issues of **Brown's Economic Damages Newsletter** & published articles related to this month's topic:
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- **November 2022:** "FATALITY CASES: PCRs, valuable services, remarriage and divorce contingencies, and the tax gross-up" vol. 19, issue #7
- **March 2018:** "Legal Memorandums for injury/fatality cases; Information to compile for injury/fatality cases for quantum of economic damages; & Online Calculators to assess economic damages" vol. 15, issue #3
- **November 2017:** "*Baker Estate v. Poucette* (2016-2017): Appeal Decision sets Principles for "Fairness" in Fatality Cases" vol. 14, issue #9
- **August 2014:** "Personal Consumption Rates ("PCRs") in Fatality Cases: 2007-2008 *Surveys of Household Spending* Data" vol. 11, issue #7
- **September 2012:** C.L. Brown, "Update of Personal Consumption Rates for Canada Using 2007-08 *Surveys of Household Spending* Varying by Family Size and Income Level", Journal of Forensic Economics (XXIII) 2
- **July 2012:** "Personal Consumption Rates ("PCRs") in Fatality Cases – published article in Journal of Forensic Economics (forthcoming in 2012)" vol. 9, issue #6
- **November 2011:** "Fatality Cases: Unique aspects related to quantum awards", vol. 8, issue #9
- **April 2011:** "PCR Rates for Canada by income level: update 2000 estimates with 2007-08 Survey of Household Spending data – PART II*",* vol. 8, issue #3
- **March 2011:** "PCR Rates for Canada by income level: update 2000 estimates with 2007-08 Survey of Household Spending data – PART I*",* vol. 8, issue #2
- **August 2010:** "RRSPs: Impact on after-tax loss calculations, and in fatality cases*",* vol. 7, issue #8
- **November 2010:** "The Divorce Contingency: negative contingency in fatality cases – update with 2005 data*",* vol. 7, issue #5
- **June 2010:** "Impact of Taxes & Tax gross-ups (on subrogated & WCB claims)", vol. 7, issue #6
- **February 2006:** "Fatality Methodologies and PCR rates for Canada by income level – article published in the *Journal of Forensic Economics",* vol. 3, issue #2
- **April 2006:** "Divorce rates in fatality cases", vol. 3, issue #4
- **February 2004:** "Canadian spending patterns – *Survey of Household Spending",* vol. 1, issue #102
- **March 2004:** "Remarriage contingencies in fatal dependency claims*",* vol. 1, issue #103
- **Spring/Summer 2004:** C.L. Brown, "Personal Consumption Rates for Canada: Differentiated by Family Size and Income Level Using Survey of Household Spending (SHS) 2000 Data", Journal of Forensic Economics (XVII) 2
- **May 2004:** "PCR rates for Canada by income level: original research using the *Survey of Household Spending* (SHS) 2000", vol. 1, issue #105
- **December 2004:** "*Fullowka et al v. Royal Oak Ventures et al* (The 'Giant Mine' case)", vol. 1, issue #111
- **February 2003:** "Loss of dependency awards – personal consumption rates in Canada. New research has significant impact on dependency calculations", vol. 1, issue #90

Wrongful death cases also differ from injury cases in terms of the heads of damage that are routinely estimated: (a) loss of dependency on income; (b) loss of dependency on valuable services (housekeeping and parental role); and (c) tax gross-up. The latter is mandatory, because the dependency loss on income calculation is based on the after-tax and deductions income of the household earners (per the Supreme Court of Canada in *Keizer v. Hanna* (1978)).[4] The other differentiation from injury cases that applies solely to wrongful death cases is accounting for the living expenses no longer required by the decedent to "earn a living". This entails specifying a **personal consumption rate (PCR)** for the decedent, which reduces the household income remaining from which the surviving family members' dependency is established.[5] In other words, Canadian precedent is clear that the decedent's variable expenses (i.e., expenses that varied with his/her presence, such as food, clothing, personal care, health care, and transportation) must be **deducted** in order to calculate dependency losses.

This author testified for a week on behalf of 9 families when gold miners were killed by an explosion at the Giant Mine in 1992 in Yellowknife, NWT. Lutz, J. accepted this author's testimony for seven of the nine families.[6] Having been hired in 1995 on these cases culminating in testimony in November of 2003, this author cultivated a deep specialization in fatality cases as well as created complex in-house software to accurately assess dependency loss damages.[7] The value of this software becomes apparent when complicated fact situations arise, as will be discussed in section (3) below.

(2) Highly inflated damages when the 'sole dependency' calculation is used.

In all fatality cases, it is well-established that if both parents worked for pay before the incident, each of their income histories are critical to quantum experts in estimating what *both* spouses *would have earned* in the absence of the incident. This is because in households where parents share income and expenses the resulting dependency loss for the surviving family members depends directly on the household's **total** financial resources.

When couples share income and expenses (regardless of how that is accomplished), the correct formula for calculating dependency losses on income is as follows:

PCR_1 = personal consumption rate of decedent[8]
PCR_2 = personal consumption rate of survivor[9]
Dy = deceased's disposable (after tax and deductions) income
Sy = survivor's disposable (after tax and deductions) income[10]

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[4] Dickson J. (as he then was), in *Keizer* v. *Hanna*, [1978] 2 S.C.R. 342 (S.C.C.) stated that "[T]he impact of income tax should be taken into account in assessing a damage award under the *Fatal Accidents Act*" and in the words of De Grandpre J. in that same case:

> It seems to me that what the widow and the child have lost in this case is the support payments made by the deceased, support payments which could only come out of funds left after deducting the cost of maintaining the husband, including the amount of tax payable on his income. I cannot see how this pecuniary loss could be evaluated on any other basis than the take-home pay, that is the net pay after deductions on many items, including income tax . . .
>
> It is quite obvious that basing an award under the *Fatal Accidents Act* on gross income would fail to take into consideration the realities of life in a modern state and would, in some cases, give to the dependents a fund greatly in excess of their financial loss. Income tax must therefore be taken into consideration . . .

[5] Dependency rates are the inverse of PCRs: {Dependency rate + PCR = 100% of total household income}. If the decedent's PCR is 10%, the family's dependency rate is 90%. If the decedent's PCR is 50% (in low-income households), the family's dependency rate is 50%.

[6] *Fullowka et al v. Royal Oak Ventures,* [2005] 5 W.W.R. 420 (N.W.T. S.C.), revd 66 C.C.E.L. (3d) 1, 56 C.C.L.T. (3d) 213 (N.W.T. C.A.) affd [2010] 1 S.C.R. 132, 315 D.L.R. (4th) 577. Neither the court of appeal nor the Supreme Court of Canada disturbed the damages assessment made by the trial judge.

[7] Plaintiff's counsel hired us to create specialized software for these cases.

[8] This PCR is determined with reference to the original household, i.e., the decedent, survivor, and dependents.

[9] This PCR is usually the same as the decedent's PCR. It differs if/when the survivor re-couples and additional children expand the household size. By incorporating new family members, this formula reflects the impact of new events following the premature death.

[10] In all cases, the survivor's income should equal the hypothetical income the survivor would have earned had the incident not occurred. Any increases or decreases to the survivor's income *following* the death of the decedent should not be reflected in the dependency loss formula; rather, the calculation must then turn to a comparison of the survivor's hypothetical and actual age-earnings profiles to determine if a gap exists, and if so, it is attributable to the premature death. If the survivor's full income is not counted, this inflates the dependency losses unnecessarily because the dependency loss formula must represent the household in the absence of the incident.

Dependency loss formula: {([1 – **PCR_1**] x Dy) – (**PCR_2** x Sy)}

In the event that **Sy = $0** (i.e., the survivor did not work for pay), the last part of the formula (**PCR_2** x Sy) "falls away" (cancels to zero) and the resulting dependency loss is derived from the decedent's income – *because that is what the household relied on before the wrongful death for household living expenses.* In this way, we have a formula that is used for *all* households that share income and expenses – not just those that fit into a definition of a sole earner "traditional household".

There is one firm in Canada which continues to promote an inexplicable calculation (the 'sole dependency' calculation) **whereby the survivor's income is ignored** – the loss is calculated solely from the decedent's earning capacity (minus variable expenses, represented by the PCR). This approach presumes a household where the survivor did not spend any of his/her income on his/her spouse or children. It assumes that only the decedent's income matters on the implausible basis that the survivor has lost the *emotional* opportunity to spend money on his/her partner.

This "notion" follows directly from a narrow focus on "traditional" households where the man is the "breadwinner" and the woman is a stay-at-home parent (and they have two children). Not only are there many other households for which this pattern does not exist,[11] a calculation cannot be fashioned out of a traditional notion about how parents operate their households because it will not apply equally to households of all economic types, sizes, and income levels.

This also does not reflect the reality of the majority of households, who use total resources (both parents' incomes) to pay for living expenses. More importantly, it asks the forensic economist to indulge in *emotional* assessments of the couple's relationship[12] when this is not possible (as economists) and not necessary.[13] Dependency losses on income are calculated based on the household's total income, because that is what the household used to afford living expenses. How or why the parents coupled up is irrelevant to the economic realities of operating a household. It may affect the intra-allocation of income within the household between parents,[14] but it does not negate the obvious fact that the household takes in income from both parents and pays family expenses from it.

If a case arises whereby the decedent focused on unpaid work – that is, s/he was the caregiver parent and reported $0 in wages – the answer then is to focus on *valuing* the decedent's unpaid work,[15] not warping the dependency loss formula (in only some situations) to generate a desired outcome.

It is critical to understand the dependency loss formula above because ignoring the survivor's income grossly inflates dependency loss damages. When hired by defense counsel to critique a plaintiff expert's estimated dependency losses

[11] In 2022, families without children represented 44% of all Canadian families, while families with one or more children made up 56% of the total (source: Statistics Canada. Table 11-10-0013-01 – *Census families by total income, family type and number of children*).
[12] For example, one economist writes that "The sole dependency method assumes that all transfers between spouses are unconditional, meaning one spouse can support the other without expecting anything in return. This can be viewed as an *idealized* marriage, and represents complete altruism between the spouses. In this framework, the full amount that was implicitly transferred to a surviving spouse, has been lost by that spouse". The authors then go on to describe a marriage entered into for "financial arrangements" versus "love and affection" (source: Bruce, Rathje and Weir, *Assessment of Personal Injury Damages* (Ontario, Canada: LexisNexis Canada Inc.), June 2019 (6th edition), pp. 67-72. No updated version of this book has been published since 2019.
[13] This approach was rejected in *Labbee v. Peters* (1997), 201 A.R. 241 (Q.B.), affd 237 A.R. 382, 45 M.V.R. (3d) 44 (C.A.): "This approach is troubling because it ascribes value to love and affection other than non-pecuniary damages related to pain and suffering. Courts are charged with assessing economic, not emotional loss.
[14] For literature on this topic, Krueger, K. 2007. "Personal consumption by husbands and wives." Journal of Forensic Economics 20(1): 15-30; Krueger, K. 2014. "Personal consumption by family type and household income." Journal of Forensic Economics 25(2): 203-220; and Rosenbaum, D., and K. Ellis. 2022. "Estimating Personal Consumption Rates for Husbands and Wives: A Comparison of Income-Strata and Microdata Models." Journal of Forensic Economics 30(1): 63-8. Even if families distribute income shares differently, no economist can express an opinion as to how their affection (or lack thereof?) influences this distribution.
[15] For a thorough review of how to value unpaid work in Canada, see **Brown's Economic Damages Newsletter,** "Valuing Household Rates in Civil Litigation, and how they are used in the **Housekeeping Damages Calculator™ (HDC)** at www.browneconomic.com" May 2024, vol. 21, issue 2.

using a sole dependency calculation, we have found in some cases that the sole dependency calculation *doubles or triples* the loss estimates compared to when total household income is used; in other cases, it inflates damages by 20% to 30%, depending on the relativity of the spouses' incomes.

A review of wrongful death cases across Canada reveals that the court, even when presented with a 'sole dependency' calculation, has so far still inquired about the survivor's income.[16] This is expected, since judges are aware that households take in both parents' incomes and then use them to pay expenses. In cases where judges have been pressed into applying a 'sole dependency calculation', they have not done so: they created something called a 'modified sole dependency' calculation *where the survivor's income is considered.* This is no different than the formula above, which considers all household resources. In cases commenting on a 'modified sole dependency' calculation, either the experts or the trial judge attempt to modify the loss calculations for the survivor's income in an ad hoc way.

The formula shown above applies to all household sizes and configurations, and does not require ad hoc adjustments.

(3) Interesting case studies.

In two recent fatality cases, we were hired by defense counsel (in New Brunswick and Alberta) to specifically address how to calculate wrongful death damages when new children are added to the household after the negligent incident. In one case, the survivor was cohabiting with a new partner who brought two additional children into the original household, which originally consisted of the surviving husband and two children. This matters, because the survivor's income is now devoted to his children *with* the decedent, *and* the children of his new partner. More household inhabitants share in the same income level. This reduces the resources available to the two dependent children because the survivor's income must be shared amongst all children.

In a different case, the survivor not only re-coupled following the incident but also had a child with a new partner. Again, this altered the household's personal consumption rate (PCR), which varies by family size. The survivor's income is now shared amongst his/her older children with the decedent and the youngest child with the new partner, so there is less income to devote to the older children. Both fact situations serve to reduce dependency loss damages.

Interestingly, in both cases, plaintiff's counsel was not forthcoming about any information regarding the new partner (i.e., name, date of birth, education level, income history, children born). In one case, the survivor testified in his *Questioning* that although he had met someone new, and they had lived together, the new partner had moved out of the home at the time of the *Questioning* (about 10 years after the incident). We were asked by defense counsel to assume the existence of the new partner and his/her contribution, irrespective of the living situations at the present time.

Not only were we able to explicitly compare the decedent's income to the new partner's income every year, as well as compare the decedent's unpaid time to the new partner's unpaid time, our in-house software permits a comparison of household occupants before and after the wrongful death so we can consider the impact of new family members. In one of the cases described above, the dependency loss damages (on income) we calculated equaled about $385,000 versus the plaintiff's expert, who estimated losses of $735,000 to $1.3 million.

[16] The only case in Canada whereby both experts (actuaries) used the sole dependency calculation is *Holloway v. Estate v. Giles* (2001), 201 Nfld. & P.E.I.R. 181, 14 M.V.R. (4th) 189 (Nfld. S.C.); 2004 NLCA 8, 2004 CarswellNFLD 24. Even though both actuaries proposed this approach, the trial judge did not use it and changed the PCR submitted to her to reflect the survivor's income level. The appeal court affirmed the trial judge's adjustments. For a discussion of additional case law on this topic, see C.L. Brown, **Damages: Estimating Pecuniary Loss** (Toronto, ON: Canada Law Book, a Thomson Reuters business), 2024 (36th ed.), chapter 7.

The other thing to be aware of in wrongful death cases is if the survivor becomes *unemployed* or *underemployed* following the incident (for reasons unrelated to the incident), and this is embedded into the dependency loss calculation. In one case we worked on recently, the survivor's income was steady for about five years after the incident; then he ventured into self-employment for three years, during which he lost money in the first year, then earned less than 50% of what he had previously earned, possibly through paper deductions legitimately declared to minimize personal income tax.[17] This three-year period was then followed by reversion to working as an employee and earning three times what he earned while self-employed. By the time we prepared our critique, the survivor's income had doubled from what the plaintiff expert had used, in part because they failed to update the survivor's information and in part because they embedded the 3-year period into the longer-term calculation. The plaintiff expert's projection based on the survivor's much lower income had the outcome of *increasing* the dependency losses, because it falsely assumed the survivor was dependent on the decedent's income to a greater extent he actually *was* dependent.

(4) Case law outcomes when the 'sole dependency' calculation has been proposed.

Canadian judges have recognized that the "sole dependency" model will result in an overstatement of the losses where both spouses earn an income.[18] With the dramatic rise in dual-income households compared to the traditional one-income household, the sole dependency marriage structure is "archaic."[19] As noted by Justice Graesser in *T.(A.)(Next Friend of) v. Mah:*[20]

> 759 … The shifts that have occurred in social interaction and family structure in Canada over the past 100 years are so drastic that what was a cause for scandal is now mundane. I see some irony, in fact, that the Plaintiffs have demanded progressive gender equality in their argument concerning A.'s projected income, but seem to now advance a marriage structure that, operationally, is one that is (to be kind) archaic. The husband dutifully arrives home after a day of work, provides A. 72 percent of his after-tax income, and asks for not a peppercorn in return.

In 2006, in Ontario, Justice Low relied on both parents' incomes in *Rupert v. Toth*:[21]

> 177 … Where both members of the household have income, there is economic cross-dependency and calculation of the loss of support by reason of termination of the deceased partner's income must reflect that fact. Under the cross-dependency approach, the economic loss suffered by the termination of the income of the deceased partner is therefore 70% of the aggregate of the partners' incomes less the income of the surviving partner. Where the partners have equal incomes, the loss is therefore 40% of the income of the deceased. I accept the logic of the cross-dependency approach …
>
> 179 The plaintiffs argue that even if Lorraine's original argument is not accepted, the cross-dependency approach should be rejected in favour of a modified sole dependency and the loss should be calculated as 60% of the income of the deceased partner. There is, however, no evidentiary basis for departing from the cross-dependency approach. To the contrary, what is apparent from all the evidence is that of the two partners, Pat was historically more dependent over all on Lorraine than she on him and the assumption that they contributed relatively equally is fair. Accordingly, the most appropriate basis for compensation is the cross-dependency approach and I accept the loss calculation formula on the basis that the incomes were relatively equal (emphasis added).

[17] This was evident on the survivor's income tax returns because he operated as a sole proprietor since his business income was recorded on his T1 General tax return. (Had his company been incorporated, financial statements would have been filed with a T2 Corporate tax return). Despite multiple requests for the *Statement of Business Activities* for these years, they were not made available. Had we been able to examine these documents – which must be filed with a T1 General tax return – we might have been able to discern the true income of the survivor during these years.
[18] *Matthews v. Hostess Foods Products Ltd.,* 2009 ABQB 14, 2009 Carswell Alta 19, at para. 101.
[19] *S.(K.)(Litigation representative of) v. Wilcox,* 2016 ABQB 483, 2016 CarswellAlta 1564, at para. 638.
[20] 2012 ABQB 777, 2012 CarswellAlta 2371.
[21] 2006 CarswellOnt 1345.

The cross dependency approach was also accepted and used in Ontario in 2022/2023 in *The Estate of Mary Fleury et al v. Olayiwola A. Kassim,*[22] *McLean v. Valadka,*[23] and *Thompson v. Handler.*[24] The cross dependency approach was clearly determined to be the favorable approach in Alberta when both spouses earn income as stated by Justice Hall in 2013 in *Pulwicki v. Primmum Insurance Co.:*[25]

> 55 [The plaintiff's expert] argued in favor of calculating the dependency claim based upon the sole dependency model, where only Mrs. Pulwicki's income would be considered and without regard to Mr. Pulwicki's income. [The defense expert], however, argued in favour of the cross-dependency methodology of calculation where the incomes of the husband and wife are added together and thereafter the portion which would have been used by the deceased is deducted from the total.
>
> 56 **Where there are two income earners prior to the fatality, I consider that the cross dependency methodology is the correct one to be utilized.** This has earlier been accepted as appropriate in *Millott Estate V. Reinhard,* 2001 ABQB 1100 (Alta. Q.B.); *Labbee v. Peters,* [1997] A.J. No. 176 (Alta. Q.B.); *Matthews v. Hostess Foods Products Ltd.,* 2009 ABQB 14 (Alta. Q.B.). **The cross dependency method of calculation of loss should be considered as applicable where both the deceased and the surviving spouse were earning income at the time of death, and where the Court finds that they would have continued to do so thereafter, had the death not occurred (emphasis added).**

In 2001 in *Millott v. Reinhard*,[26] Fraser J. rejected the sole dependency approach, particularly when both spouses earn employment income. The court commented:

> [242] The Defendants' expert, Brown, testified that she had two main reasons for preferring cross [joint] dependency. First, Millott and Lauretta pooled their incomes, and Millott consumed 20 to 30 per cent of that total family income. In Brown's view, it is, therefore, fair that the rest of the family would still have access to the 70 to 80 per cent they did while Millott was alive. Second, she understood from *Brooks*, *supra*, that it is necessary to consider both the financial loss and the financial gain of the survivors (transcript at pp. 2251-52); also see September 27, 2000 Report, "Wrongful Death" Supplement).
>
> [243] Bruce made a strong "economic theory" argument for the sole dependency approach, arguing that Lauretta has "saved" nothing, but has actually been prevented from spending that portion of her income as she wished to spend it. He testified that, under economic theory, this means she is worse off because she cannot use the money for its first and best use. He used coffee as an example, setting a scenario where he went into a coffee shop with money for a cup of coffee, but the coffee pot broke and all the coffee spilled. A new pot would not be ready for some time, and he did not have time to wait. Therefore, he left the shop still in possession of his money, but having been deprived of the opportunity to spend it on what he wanted to spend it on. Similarly, in the present case, Lauretta wants to spend certain money on Millott, but is unable to. While she still has the use of the money for another purpose, she cannot use it for what she considers to be its optimal use.
>
> [244] First, I must determine which approach is correct at law. If more than one approach is correct, I must decide which is appropriate to apply in these circumstances.

[22] 2022 ONSC 2464, 2022 CarswellOnt 5531.
[23] 2023 ONSC 6803, 2023 CarswellOnt 20845.
[24] 2023 ONSC 5042, 2023 CarswellOnt 13702.
[25] 2013 ABQB 744, 2013 CarswellAlta 2717.
[26] *Millott v. Reinhard*, [2001] A.J. No. 1644, 2001 ABQB 1100 (judgment filed December 18, 2001). The author testified for the defendants in this matter.

[245] There is little direct discussion in the cases on this point. Rather, there are implied assumptions. Often, a court will neither discuss the rationale in detail nor use the labels. The difference is that some cases apply a dependency rate to family income (cross), while some apply a dependency rate to the deceased's income (sole). Occasionally, a court will find the dependency rate to be a certain number, then apply a lower rate (modified).

...

[247] In *Labbee v. Peters,* [1997] A.J. No. 176 (Q.B.), online: (AJ), affd (2000), 261 A.R. 141 (C.A.), McIntyre J. directly commented on the sole dependency versus cross dependency controversy, but in the context of household services (although he noted at para. 64 that the issue is more often seen in the income context). The Defendant there argued against any award for loss of household services because the survivor had done more for the deceased than he did for her; therefore, she had suffered no actual loss. Justice McIntyre noted it was unnecessary for him to reconcile the approaches, as the deceased in *Labbee* had made very significant "jack-of-all trades" contributions to the household. He also expressed his discomfort with the idea of the court assessing the value of the emotional loss of services provided out of love and affection (at para. 66).

[248] In *Riches v. Miller*, [1984] A.J. No. 815 (C.A.), online: (AJ), the Alberta Court of Appeal upheld the trial judge's finding that a "working widow" was entitled to damages based on 50 per cent of her deceased husband's net income (i.e., modified dependency). The court refused to change the award to 50 per cent of the family income less the survivor's income (explicit cross dependency). However, the court clearly stated (at para. 25) that the trial judge's finding was made in light of all the evidence, including the evidence as to the survivor's income:

> In my view, this definite finding by the trial judge makes it unnecessary to consider whether the amount to be used in computing a working widow's dependency under the *Fatal Accidents Act* should be the figure resulting from deducting the amount that the deceased would normally spend for his personal use and support from his net income without regard to the income of the widow. This amount has been referred to as 'available as disposable income for dependants' (per Spence, J., in *Keizer v. Hanna,* [1978] 2 S.C.R. 342; 19 N.R. 209, at page 343) and has been used to compute a widow's dependency in the absence of any evidence that she had in fact used or intended to use all of it for her personal use. **Availability and not use, it is argued, is the test.** *Keizer v. Hanna,* supra; *Farmers National Bank et al. v. Colles & Whebby Ltd.* (1981), 33 N.B.R. (2d) 248; 80 A.P.R. 248. (emphasis added)

[249] In *Rose v. Belanger* (1985), 17 D.L.R. (4th) 212 (Man. C.A.), the Court of Appeal upheld the trial judge's cross dependency calculation ... (based on family income, not only on the deceased's income). The court stressed that each case depends on its own facts, but that it is certain "that the income of the surviving spouse must be taken into account" (at 222). I also note that in *Braun Estate v. Vaughan*, [2000] 3 W.W.R. 465 (Man. C.A.), the Court of Appeal declined to disturb the trial judge's use of sole dependency (failing to take into account a portion of the surviving husband's income), as there was a negligible difference between the two methods in the circumstances (at 488).

[250] The courts in *Nielsen, supra* and *Murray Estate*, *supra* both followed a "modified" dependency approach. As stated by the Ontario Court of Appeal in *Nielsen* at 198-99:

> The fact that there are two 'breadwinners' in the family skews the applicability of the 'conventional' principle and figures somewhat [the 70 per cent rule of thumb]. Those figures are based on a male breadwinner as the sole support of the family. The trial judge does not appear to have considered how

> the 'conventional' figures might be affected when there is a two-wage-earner family. It must be assumed that in such families some portion of the husband's income goes to the wife or vice versa. That portion remains with the survivor. The appellant's expert, Dr. Segal, was of the view that in a two-wage-earner family the deceased would consume 30% of the total family income of husband and wife. The deceased would be partially dependent on the income that the surviving spouse is receiving and, therefore, there is an offset of that amount which the surviving spouse is no longer paying and for which 'credit' should be given. Counsel for the appellant submits that in such families the appropriate dependency percentage should be 50% rather than 70%. [original emphasis]

[251] The court went on to conclude that the deceased was thrifty and willing to sacrifice her own interests to those of her husband and children (as was also found in *Hechavarria* some years later). The court recognized the need for offsetting the amount which the surviving spouse would no longer pay to support the deceased against the loss of the deceased's income (using the conventional 70 per cent of the deceased's income). The modified approach reflected both the fact that the deceased used his or her income almost exclusively for the family's benefit, and the reality that there must be some savings of the survivor's income due to losing a member of the family unit.

[252] In *Nielsen,* therefore, the court used rates of 60 per cent for the surviving husband, with 4 per cent for each child. This reasoning and the 60 per cent conclusion were followed in *Robb v. Canadian Red Cross Society,* [2000] O.J. No. 2396 (S.C.J.), online: (OJ) at para. 215, where the issue of cross dependency instead of modified sole dependency was not explicitly addressed.

[253] Returning to the parties' submissions, **I conclude that Bruce's argument in favour of sole dependency is illogical in circumstances in which both spouses have incomes.** In addition, his underlying assumption is still that the survivor loved the deceased and wanted to spend money on the deceased; therefore, the fact of that spending should be overlooked in assessing damages. However, **the court cannot, in my view, fall into the trap of deciding which marriages were "for love", thus qualifying for sole dependency, and which were "for money", thus qualifying for cross dependency. It would be inappropriate to make the court a forum for parties to call evidence as to the type of marriage a given case involved,** or for the court to base an award on the presence or absence of love and affection. As difficult as it may be, the Court must attempt to recognize actual net economic loss (bold emphasis added).

(5) Remarriage & divorce contingencies: unique to wrongful death cases.

These contingencies refer to either the probability that the original couple might have divorced, had the decedent not died in the incident in question; or, that the survivor might now "couple-up" given the decedent has passed on. It is important to remember that one of these contingencies (divorce) pertains to the "but-for" scenario: that is, what would have happened to the marriage if the incident had not occurred. The other contingency (coupling up) pertains to the fact situation now that the incident has occurred, and the decedent has passed on. Normally, these contingent events are proxied using Statistics Canada's divorce and marriage rate data, and both reduce all dependency loss damages.

Some experts have attempted to use Statistics Canada's tables for "numbers of people" who marry and divorce each year in Canada for these contingencies.[27] Unfortunately, data by "numbers of people" do not permit us to extrapolate conditional probabilities[28] that must be used in fatality cases – there is simply not enough information. Moreover, the marriage rates published by Statistics Canada reflect 1st, 2nd, and 3rd+ marriages, so include many divorced people who have remarried. In fatality cases, remarriage rates must be based on widow(ers) only. Unsurprisingly, *remarriage rates for widow(ers) are considerably lower than remarriage rates for divorced persons,* which means that if a quantum expert uses the "numbers of people" data, they are grossly overstating the probability that someone who was widowed will remarry (which lowers the damages claim).

The remarriage rates must be applied separately for women and men, since the propensity to remarry differs for women than for men: women are less likely to remarry once widowed, and when they do, take longer to remarry than men. Remarriage rates are also, as we would expect, lower for older people than for younger people; this contingency will have a large impact in cases where the decedent and survivor were young (i.e., in their 20s or 30s) but will have a much smaller impact in cases where the decedent and survivor are older (mid- to late-40s and older).

The most important aspect of integrating a divorce contingency in fatality cases depends on the *nature of the couple's union prior to the incident.* In cases where the spouses in question were legally married, Statistics Canada publishes divorce rates by gender, age and province[29] that are readily available.

In cases where a new partner emerges, we can explicitly compare his/her financial and unpaid work contribution, year-by-year, to the decedent's same contributions. If re-coupling has not yet occurred (i.e., a specific person has not been added to the household), the usual approach is to apply remarriage rates in the future loss period depending on the couples' genders and ages. Both opposite-sex and same-sex households can be proxied in our in-house software. If the original couple were cohabiting, we possess common-law union dissolution rates (CLUs) to use instead of divorce rates, which matters because the former are materially higher than the latter, reducing all dependency loss damages.

(6) Calculating fatality damages for orphans.

As someone who was intimately involved with estimating the cost of raising children around the time that the Canadian government was creating and establishing child support guidelines, our firm has deep knowledge of the accurate method to calculate dependency loss damages when a single parent or both parents perish in an accident.

A recent case we critiqued saw the plaintiff's expert assume a dependency rate of 50% to 60% for two *adult* children (one was disabled) of two parents who died in an accident. Along with duplicating income sources, and the valuable services claim, this approach generated a loss award for the two daughters, ages 22 and 26 at the time of accident, of $1.65 million. Our estimates for the two daughters, of which the older one was dependent for life due to disability, equaled approximately $400,000.

[27] See for instance, Statistics Canada. Table 39-10-0053-01- *Number of persons who divorced in a given year and divorce rate per 1,000 married persons, by age group and sex or gender*; Statistics Canada. *Divorces 2001 and 2002 – Shelf Tables*. Catalogue no. 84F0213XPB (2004); Statistics Canada. *Divorces 2003 – Shelf Tables.* Catalogue no. 84F0213XPB (2005); and Statistics Canada. *Marriages 2001 – Shelf Tables.* Catalogue no. 84F0212XPB (2003).

[28] Conditional probabilities consider how long the survivor has remained widowed since the incident date, because widow(ers) who delay cohabitation or remarriage are less likely to remarry in the future. There is no possible way to reflect this factor using data for "numbers of people".

[29] This is important, as the national average obscures some important differences between provinces and territories in Canada. For instance, although the total divorce rate (by the 30th year of marriage) was 38.3% in 2003 – meaning that for every 100 divorces, 38 of them end in divorce by the 30th year of marriage – this obscures the fact that the overall divorce rate is much lower in Newfoundland and Labrador (17.1%) and much higher in Quebec (49.7%). The "average" rate of roughly 40% (40 out of 100 marriages) describes couples in Ontario (37.0%), British Columbia (39.8%), Alberta and the Yukon (40.0%). Lower-than-average divorce rates are prevalent in the remaining provinces and territories (27 to 30%). (Source: Statistics Canada, "Divorces 2003" *The Daily* released March 9, 2005).

This expert's dependency rates of 50% to 60% for two adult children were clearly inappropriate given that PCRs for an adult decedent range from 10% to 50% (depending on income level),[30] implying family dependency rates of 50% to 90%. There is no possible way that out of the family dependency rate of 50% to 90%,[31] the children's costs could equal 50% to 60%. In the first example, this would mean that 100% of the family's income was used to care for the children (and none was spent on the deceased parent(s)). In the second example, it would mean that 60% of the 90% dependency rate (2/3rds) is attributed to the children, and only 30% was spent by both parent(s).

We typically use a dependency rate for orphaned children of 24% for one child, 36% for two children (economies of scale mean that each child in a 2-child family has an 18% dependency rate, rather than a 24% rate for an only child). These rates have been determined with reference to the USDA's *Expenditures on children by families, 2015* (the most recent) as well as a 2023 Statistics Canada publication entitled *Estimating Expenditures on Children by Families in Canada, 2014 to 2017*,[32] which represents the most recent effort to estimate Canadian families' average expenditures on children at the national level in over a decade. Statistics Canada remarks the following about its 2023 study:

> …generating estimates of the cost of raising a child is a surprisingly complex endeavor. Practically, spending on children is highly variable and influenced by the tastes and preferences of parents and whether children have specific needs (e.g., because of a disability) (Burton & Phipps, 2009; Duncan et al., 2017). Spending is also constrained by family income and circumstances such as geographic location (Coley et al., 2016; Lino et al., 2017).[33] For example, it was estimated that the cost of living in Canada's northern territories was about 1.46 times higher than elsewhere in Canada during the period from 1997 to 2009 (Daley et al., 2015).[34] Conceptually, there is also lack of agreement as to what is meant by the question, "How much does it cost to raise a child?" (Browning, 1992).[35] These different meanings make it important to distinguish between methods that estimate how much families **are spending** on children and those that estimate how much families **must spend** on children at a particular standard of living (p. 7).

The Statistics Canada 2023 study was modelled after that used by the *United States Department of Agriculture* (USDA) which has produced estimates of expenditures on children for several decades, the most recent using American household expenditure data from 2011 to 2015 (published in 2017). The Statistics Canada study follows the USDA report by using household expenditure data to provide estimates for the amount Canadian families spend on children in total (per child).[36] It also examines expenditures across seven categories: child care and education, clothing, food, health care, housing, transportation, and miscellaneous (pp. 7-8). Pooled data from four cycles of Statistics Canada's

[30] PCR rates for Canadian households using the 2000 *Survey of Household Spending* and the 2007-08 combined samples from the *Survey of Household Spending* can be found in C.L. Brown, **Damages: Estimating Pecuniary Loss** (Toronto, ON: Canada Law Book, a Thomson Reuters business), 2024 (36th ed.), chapter 7; Brown, C.L. (2012) "Personal Consumption Rates for Canada: Update of 2000 PCRs Using 2007-08 *Survey of Household Spending* data" Journal of Forensic Economics 23(2), 2012, pp. 135-157; Brown, C.L. (2004) "Personal Consumption Rates for Canada: Differentiated by Family Size and Income Level using *Survey of Household Spending* (SHS) 2000 data" Journal of Forensic Economics 17(2), Spring/ summer 2004, pp. 147-165. PCRs based on the 2019 and 2021 SHS samples are in progress.
[31] Dependency rates are the inverse of PCRs: {Dependency rate + PCR = 100% of total household income}. If the decedent's PCR is 10%, the family's dependency rate is 90%. If the decedent's PCR is 50% (in low-income households), the family's dependency rate is 50%.
[32] Duncan, A. Karen, Kristyn Frank and Anne Guèvremont. *Estimating Expenditures on Children by Families in Canada, 2014 to 2017*. Statistics Canada Catalogue no. 11F0019M — No. 473, September 29, 2023.
[33] Coley, R. L., Sims, J., & Votruba-Drzal, E. (2016). "Family expenditures supporting children across income and urbanicity strata". *Children and Youth Services Review, 70,* 129–142 (http://dx.doi.org/10.1016/j.childyouth.2016.09.017); and Lino, M., Kuczynski, K., Rodriguez, N., and Schap, T. (2017). *Expenditures on children by families, 2015*. Miscellaneous Publication No. 1528-2015. U.S. Department of Agriculture, Center for Nutrition Policy and Promotion.
[34] Daley, A., Burton, P., & Phipps, S. (2015). Measuring poverty and inequality in northern Canada. *Journal of Children and Poverty, 8,* 89–100.
[35] Browning, M. (1992). Children and household economic behavior. Journal of Economic Literature 30(3), 1434–1475. http://www.jstor.org/stable/2728065.
[36] The Canadian sample was comprised of 9,989 two-parent and 2,303 one-parent households, with approximately one-third (3,647 two-parent and 760 one-parent households) completing the two-week expenditure diary. Expenditure items that were included and excluded from the analysis are shown in Appendix Table A.1 (p. 11) of the 2023 study.

Surveys of Household Spending (SHS) from 2014 to 2017 were used to obtain a large enough sample for analysis. Because a single estimate of the amount that families spend on a child would not accurately account for the different situations of families across Canada, estimates were generated separately for one- and two-parent families (including birth, adoptive, step, and foster parents) and by household income level ("lower-income", "medium-income", or "higher income").[37] Estimates were also generated by region for two-parent families (p. 5).

The data on cost of raising children is applicable in fatality cases where children are the only dependents. However, the percentages from this research are also used in the intra-allocation of dependency shares amongst individual household occupants in cases involving families, so that losses can be produced for each family member. For valuable services, a per-capita division is recommended. The tax gross-up should be calculated only on the survivor's portion of future losses.

[37] Data on income were obtained mainly from the Individual Income Tax Return (T1) administrative data files from the *Canada Revenue Agency* and correspond to the income associated with the calendar year preceding the survey year. Income was defined as the total household income before taxes, which includes the income of any household members aged 16 or older. It includes employment and investment income, as well as government transfers such as the CCB and the goods and services tax credit. Income was divided into low, medium, and high categories using the distribution of income of two-parent families with one to four children to determine the cut-off points. Two-parent households with income lower than the 33rd percentile ($83,013) were categorized as "lower income." Two-parent households with income from the 33rd to the 66th percentiles ($135,790) were categorized as "medium income." Two-parent households with income higher than the 66th percentile were categorized as "higher income." Mean incomes for two-parent families were $54,630 for the lower-income, $107,770 for the medium-income, and $218,540 for the higher-income groups. For data quality reasons, the medium- and high-income groups were collapsed for the one-parent households to form the medium-high-income group. The average incomes for one-parent families were $42,240 for the lower-income and $126,190 for the medium-high-income groups (p. 11).

Consumer Price Index

Unemployment Rate

From October 2023 to October 2024* (rates of inflation)		For the month of October 2024	
Canada**	2.0%	Canada:	6.5%
Vancouver:	2.2%	Vancouver:	6.4%
Toronto:	2.3%	Toronto:	8.0%
Ottawa:	2.1%	Ottawa:	6.3%
Montréal:	2.0%	Montréal:	6.7%
Edmonton:	2.9%	Edmonton:	8.6%
Calgary:	3.3%	Calgary:	7.7%
Halifax:	1.8%	Halifax:	5.4%
St. John's, NF:	1.3%	St. John's, NF:	6.7%
Saint John, NB:	1.8%	Saint John, NB:	4.8%
Charlottetown (PEI):	1.7%	Charlottetown (PEI):	10.0%
* Using month-over-month indices. Source: Statistics Canada.			
** 12 month rolling average up to October 2024 is 2.6% (see non-pecuniary awards table).			

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Updating Non-Pecuniary Awards for Inflation (Oct. 2024, Canada)

		Non-Pecuniary Damages - Sample Awards				
Year of Accident/	**"Inflationary"**	$10,000	$25,000	$50,000	$75,000	$100,000
Year of Settlement or Trial	**Factors***					
October 2023-October 2024	1.026	$10,261	$25,653	$51,305	$76,958	$102,611
Avg. 2022-October 2024	1.060	$10,603	$26,508	$53,015	$79,523	$106,030
Avg. 2021-October 2024	1.132	$11,324	$28,310	$56,620	$84,930	$113,241
Avg. 2020-October 2024	1.171	$11,709	$29,271	$58,543	$87,814	$117,085
Avg. 2019-October 2024	1.179	$11,793	$29,482	$58,965	$88,447	$117,929
Avg. 2018-October 2024	1.202	$12,023	$30,057	$60,114	$90,171	$120,228
Avg. 2017-October 2024	1.229	$12,295	$30,737	$61,474	$92,210	$122,947
Avg. 2016-October 2024	1.249	$12,491	$31,228	$62,455	$93,683	$124,910
Avg. 2015-October 2024	1.267	$12,670	$31,674	$63,348	$95,023	$126,697
Avg. 2014-October 2024	1.281	$12,812	$32,031	$64,062	$96,093	$128,124
Avg. 2013-October 2024	1.306	$13,057	$32,641	$65,283	$97,924	$130,565
Avg. 2012-October 2024	1.318	$13,179	$32,947	$65,894	$98,841	$131,788
Avg. 2011-October 2024	1.338	$13,379	$33,447	$66,895	$100,342	$133,789
Avg. 2010-October 2024	1.377	$13,768	$34,421	$68,842	$103,263	$137,684
Avg. 2009-October 2024	1.401	$14,014	$35,035	$70,069	$105,104	$140,138
Avg. 2008-October 2024	1.408	$14,080	$35,201	$70,401	$105,602	$140,803
Avg. 2007-October 2024	1.439	$14,389	$35,971	$71,943	$107,914	$143,885
Avg. 2006-October 2024	1.470	$14,696	$36,739	$73,479	$110,218	$146,957
Avg. 2005-October 2024	1.499	$14,990	$37,474	$74,949	$112,423	$149,897
Avg. 2004-October 2024	1.532	$15,322	$38,305	$76,610	$114,915	$153,220
Avg. 2003-October 2024	1.561	$15,607	$39,017	$78,034	$117,051	$156,068
Avg. 2002-October 2024	1.604	$16,038	$40,094	$80,188	$120,282	$160,376
Avg. 2001-October 2024	1.640	$16,400	$41,000	$82,000	$123,001	$164,001
Avg. 2000-October 2024	1.681	$16,813	$42,032	$84,064	$126,096	$168,127
Avg. 1999-October 2024	1.727	$17,271	$43,177	$86,354	$129,532	$172,709
Avg. 1998-October 2024	1.757	$17,570	$43,925	$87,849	$131,774	$175,698
Avg. 1997-October 2024	1.774	$17,745	$44,362	$88,724	$133,086	$177,448
Avg. 1996-October 2024	1.803	$18,032	$45,080	$90,161	$135,241	$180,322
Avg. 1995-October 2024	1.832	$18,316	$45,791	$91,582	$137,373	$183,164
Avg. 1994-October 2024	1.871	$18,710	$46,774	$93,548	$140,322	$187,096
Avg. 1993-October 2024	1.874	$18,740	$46,851	$93,701	$140,552	$187,402
Avg. 1992-October 2024	1.909	$19,090	$47,726	$95,452	$143,179	$190,905
Avg. 1991-October 2024	1.937	$19,374	$48,435	$96,871	$145,306	$193,742
Avg. 1990-October 2024	2.046	$20,465	$51,161	$102,323	$153,484	$204,645
Avg. 1989-October 2024	2.144	$21,444	$53,611	$107,221	$160,832	$214,442
Avg. 1988-October 2024	2.251	$22,513	$56,282	$112,565	$168,847	$225,130
Avg. 1987-October 2024	**2.342**	$23,417	$58,543	**$117,085**	$175,628	$234,171
Avg. 1986-October 2024	2.444	$24,438	$61,094	$122,188	$183,283	$244,377
Avg. 1985-October 2024	2.546	$25,462	$63,655	$127,310	$190,965	$254,621
Avg. 1984-October 2024	2.647	$26,471	$66,177	$132,354	$198,531	$264,708
Avg. 1983-October 2024	2.761	$27,610	$69,025	$138,051	$207,076	$276,102
Avg. 1982-October 2024	2.923	$29,231	$73,077	$146,154	$219,231	$292,308
Avg. 1981-October 2024	3.238	$32,376	$80,941	$161,882	$242,823	$323,763
Avg. 1980-October 2024	3.642	$36,421	$91,052	$182,103	$273,155	$364,206
Avg. 1979-October 2024	4.011	$40,110	$100,275	$200,550	$300,825	$401,101
Jan. 1978-October 2024	**4.569**	$45,687	$114,217	$228,433	$342,650	**$456,866**

$117,085= $50,000 x 2.342 represents the dollar equivalent in October 2024 of $50,000 based on inflation increases since 1987. Similarly, $456,866 (=$100,000 x 4.569) represents the dollar equivalent in October 2024 of $100,000 in 1978 based on inflationary increases since the month of January 1978.

* Source: Statistics Canada, Consumer Price Index, monthly CPI release, rolling average (except for Jan. 1978).

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